Application Data Sheet

SCHNEEBERGER

Gear Ø139 Z26

A32-200

The spline shaft is usually ground from a solid cylindrical part with conventional wheels. It allows to change the spline geoemetry fast and economically by simply changing the wheel-DXF and redress the new geometry on the same wheel, and for small splines the wheel can be kept sharp as being redressed when needed. Pregrinding could eventually be done with a V-shaped CBN wheel, whose V-form fits into most of the spline geometries, to increase grinding efficiency.

1. Cycletime for Production

Tool specifications Diameter 139 mm, Z26, Length of cutting edge 90mm, depth tooth: 5.3mm, Material 18NiCrMo7-6+HH					
Operations		Probe	Dress	Flute	Cyl-grind
Feed [mm/Min]		2000	120	1000	35
Power [kW]			1	1	1
Cutting feed [m/s]			32	24	24
Used wheels				2	1
Grinding time [s]		20	120	540	520
Total cycle time	20 Min 0				

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.

2. Used Grinding Wheels

1 Ø200 1V1 B46
2 Ø125 DXF Conventional
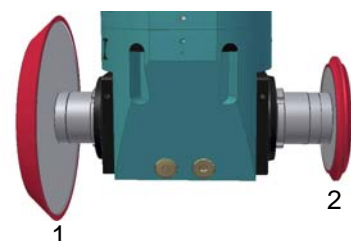
3. Machine and Software Requirements

Machines:	5 axes CNC grinders : NORMA CFG
Control:	Fanuc 160i
Coolant:	Synthetic Oil, pressure 6 - 7 bar
Software:	Quinto 4.3, DXQ
Engineer:	Diego Albiero, 01.04.2009

TECHNOLOGY FOR TOOLING